No. 132

W. Elliot Woodward's

EIGHTY-SEVENTH SALE.

Minerals.

The Wettstein Museum.

FRIDAY OR SATURDAY, JUNE 25 or 26, 1886.

CATALOGUE

OF

MINERALS AND ORES,

Mostly from the Mining Region of Lake Superior,

COMPRISING THE MINERAL CABINET OF

Mr G. A. WETTSTEIN,

OF NEGAUNEE, MICH.

TO BE SOLD BY AUCTION

BY MESSRS. BANGS & CO.

739 & 741 Broadway, New York City,

On Friday, June 25, or Saturday, June 26, 1886.

Immediately after the Sale of the magnificent stock of Minerals belonging to the Jasperized Wood and Mineral Company, of New York.

This splendid assortment of Minerals is now on exhibition and sale by the Company at the rooms of Messrs. Bangs & Co., arranged in cabinets, and the whole collection is offered at private sale entire, in large selected cabinets or single specimens at fixed prices. In large quantities these Minerals will be offered at a great reduction from dealers' prices, in the hope of closing out the entire collection prior to Saturday. Then all on which day all that remains will be sold at auction to single specimens as per catalogue.

Catalogues can be obtained from Messrs. Bangs & Co., or by addressing to them, the Jasperized Wood and Mineral Co., proprietors. The sale of the Minerals will begin immediately after the sale of W. and M. Collection is sold. The goods are now and will remain on exhibition until Saturday, June 26, and the sale will begin at precisely Two o'clock on that day.

Orders for the Sale will be received as usual by all Dealers in Curios, Minerals, Geological Objects, specimens in Natural History, Bric-a-brac, Postage Stamps, etc., also by the Auctioneers and the Compiler.

Catalogue by W. Elliot Woodward.

BOSTON:

T. R. MARVIN & SON, NUMISMATIC PRINTERS

1886.

CORRESPONDENTS are requested to address me from Saturday, June 19, until the close of my Sales 85, 86, 87, 88, Tuesday, June 29, in New York City, care of Messrs. Bangs & Co.

Catalogues of Sales 81, 82, 83, 84, are now ready for delivery, as previously announced, and catalogues of Sales 85, 86, 87, 88, priced and on thick tinted paper can be had presently after the Sales at the following prices: Sale 85, Postage and Revenue Stamps, 50 cts. Sale 86, Archaeology, two days, 75 cts. Sale 87, Minerals, the Wettstein Collection, 50 cts. Sale 87, the Jasperized Wood and Mineral Co.'s Collection, large quarto, ordinary paper, 45 pages, 75 cts. Sale 88, Numismatics: American, Canadian and Ancient Roman Coins, thick tinted paper, two days, $1.

The Catalogues above mentioned will be forwarded to order; but correspondents will bear in mind that the clerical labor is so great that some time must necessarily elapse after each Sale before the marked catalogues can be prepared, hence a little delay cannot be avoided.

CATALOGUE.

ORES AND MINERALS.

The following are from the museum of Mr. J. A. Wetmore of Negaunee, Mich., and are nearly all from the mining region of Lake Superior, and mostly from Marquette County. The specimens are carefully labelled, giving the mine and location whence they were obtained, the succeeding figures give the size of the specimens in inches, lengthwise, breadthwise, the largest in extreme measurement. Many of the larger examples are of size amply sufficient, by breaking, to furnish numerous specimens. Nearly all are fine, and extensive descriptions are avoided.

It will be observed that the names given to these minerals are seldom scientific, but on the contrary, are simply the popular names given such specimens as the miner by eyesight and usage.

1 Muscovite, smoky mica in pink feldspar; very fine. 6 x 5.
2 Fine group of cubic iron pyrites. 6 x 4.
3 Cockscomb baryte, heavy spar and iron ore. 5 x 4.
4 Cockscomb baryte *with* hematite. 4 x 4.
5 Ochreous stalactitic limonite. 3 x 8.
6 Giant's Causeway ochreous pipe and grape-form limonite. Massive and very fine. 10 x 7.
7 Crystals of smoky quartz on gangue of iron ore. 4 x 2.
8 Diamond drill core of sandstone. 18 x 2.
9 Grape manganese. 4 x 8.
10 Fine core of quartzite polished by diamond drill. 8 x 11.
11 Serpentine diamond drill core; very fine. 18 x 1.
12 Prism spar calcite and pyrites on slate. 6 x 4.
13 Limonite, ochreous velvety pipe ore; immense in size, and very fine. 13 x 10 x 5.
14 Limonite kidney ore; an example of immense size and very fine. 12 x 8 x 6.

15 Fine velvety pipe ore limonite and manganese. 6 x 5.
16 Amethystine quartz and pyrites on rich magnetic iron ore. 8 x 6.
17 Cockscomb barytes with heavy spar. 5 x 4.
18 Manganese and barytes. 4 x 3.
19 Convex pyrites, calcite and iron ore. 4 x 4.
20 Cockscomb barytes and hematite. 5 x 4.
21 Ochrous columnar hematite. 7 x 5.
22 Barytes, etc. 5 x 4.
23 Pyrolusite manganese and hematite. 5 x 4.
24 Cockscomb barytes, spar with various other minerals; fine specimens, all of large cabinet size. 18 pcs.
25 Gold-bearing quartz, with pyrites; fine. 4 x 3.
26 Serpentine with one face polished: fine. 4 x 5.
27 Drusy quartz on limonite. 4 x 4.
28 Barytes, limonite, etc. 5 x 3.
29 Dogtooth spar, calcite, hematite, etc. 5 x 4.
30 Dogtooth spar with blue hematite; fine and handsome. 5 x 4.
31 Micaceous hematite, quartzite, jasper, etc.: massive, a fine example. 9 x 8 x 6.
32 Kidney manganese and hematite; very fine. 8 x 5.
33 Columnar quartzite. 6 x 4.
34 Geode of smoky quartz, calcite and limonite. 3 x 4.
35 Columnar limonite with curious barnacle-like formation. 4 x 3.
36 Geode of smoky spar, cubic calcite and hematite. 5 x 4.
37 Pearl grape ore of hematite: rare formation. 4 x 3.
38 Black pearl and velvet grape ore of hematite. 5 x 3.
39 Geode of nail-head spar, calcite, etc. 5 x 3.
40 Celestine and pyrites. 4 x 3.
41 Calcite, pyrites, and smoky quartz. 5 x 3.
42 Geode of mottled pearly dolomite with hematite. 4 x 3.
43 Cubic pyrites with magnetic iron. 3 x 2.
44 Black velvety shot ore of hematite. 2 x 2.
45 Columnar shot ore limonite. 4 x 3.
46 Cockscomb barytes: extra fine. 5 x 4.
47 Like the last; equally fine. 5 x 4.
48 Satinwood blue limonite. 5 x 3.
49 Finely crystalized pyrites, calcite and iron. 4 x 3.

50 Manganese, barytes, hematite, etc.
51 Fern manganese. 5 x 4.
52 Grape ore, hematite. 3 x 3.
53 Light brown hematite. 4 x 3.
54 Smoky topaz, amethyst and jasper; handsome specimen. 8 x 3
55 Limonite. 6 x 6.
56 Geode of pyrites with blue hematite. 4 x 5.
57 Pyrites with smoky quartz and chlorite on magnetic iron ore. 4 x 4.
58 Pyrolusite, manganese, etc. 5 x 6.
59 Manganese limonite, etc. 4 x 3.
60 Calcite, pyrites, and specular iron. 3 x 3.
61 Blackberry ore of limonite and hematite. 4 x 5.
62 Polished serpentine from the Ropes Gold mine. 5 x 3.
63 Cockscomb barytes; fine. 4 x 4
64 Brown hematite. 3 x 3.
65 Pyrolusite, manganese and hematite. 3½ x 2
66 Calcite, pyrites and gold-bearing quartz. 2 x 3.
67 Manganese. 3 x 4.
68 Gold-bearing quartz, pyrites, etc.; fine. 4 x 2.
69 Cinnamon silver quartz on magnetic iron. 4 x 2.
70 Black limonite. 1 x 4.
71 Moss calcite and hematite. 2 x 3
72 Black pearl grape ore of hematite. 4 x 3.
73 Barytes, finest spar and hematite. 2 x 2.
74 Smoky quartz in crystal. 3 x 3.
75 Pipe ore, limonite. 4 x 3.
76 Grape shot ore, limonite and barytes. 4 x 2.
77 Globular manganese. 7 x 3.
78 Grape manganese. 4 x 4.
79 Bulbs of magnesia coated with smoky calcite in hematite. 5 x 4.
80 Pyrolusite and manganese. 4 x 4.
81 Twin crystals of smoky quartz. 5 x 2.
82 Paper weight of pyrolusite, manganese and hematite. 2 x 4.
83 Grape hematite. 2 x 3.
84 Pyrites in crystals on magnetic iron. 4 x 2.
85 Smoky quartz. 4 x 3.

86 Diamond drusy quartz on limonite. 4 x 3.
87 Chlorite pseudomorph of garnet: large and fine. $1\frac{1}{2}$ x $1\frac{1}{2}$.
88 Manganese. 2 x 3.
89 Black pearl kidney-wood ore of limonite. 4 x 5.
90 Blackberry ore, limonite. 4 x 4.
91 Black tourmaline in quartz. 4 x 3.
92 Pyrites, iron and drusy quartz. 3 x 4.
93 Black hematite and barytes. 4 x 5.
94 Geode of quartz with pyrolusite. 3 x 3.
95 Pyrolusite, manganese and hematite. 2 x 3.
96 Pipe limonite. 2 x 3.
97 Columnar barytes, heavy spar, etc. 4 x 4.
98 Limonite, etc. 3 x 4.
99 Crystalized pyrites and calcite on iron. 3 x 4.
100 Large and curious specimen of vesicular calcite and honeycomb spar, of great size; mounted. 13 x 10.
101 Cockscomb barytes: a specimen of extraordinary size and fine quality. 9 x 9.
102 Geodes of pink calcite, thistle spar in hematite and limonite: fine. 6 x 5.
103 Diamond drusy quartz on limonite. 5 x 4.
104 Tabular barytes, heavy spar and limonite. 7 x 5.
105 Columnar barytes, etc., like Roman ruin. 6 x 5.
106 Calcite, manganese and iron. 3 x 3.
107 Cockscomb barytes, heavy spar, hematite, ochrous and iron ore: fine. 5 x 6.
108 Black hematite: very fine. 5 x 3.
109 Cockscomb barytes, etc.: fine. 5 x 4.
110 Cockscomb barytes, etc. 5 x 4.
111 Diamond drill core of sandstone. 11 x 1.
112 Diamond drill core of chlorite: very fine. 14 x 1.
113 Polished serpentine. 5 x 3.
114 Superb bunch of black pearl grape ore, hematite. 5 x 4.
115 Grape manganese: fine. 7 x 4.
116 Monster chlorite pseudomorph of garnet: symmetrical and very fine. Diameter 3 inches.
117 Another containing barytes, larger and equally fine.
118 Still another of the same excellent quality.
119 Pyrolusite manganese and barytes. 5 x 3.
120 Shot ore of manganese. 4 x 3.

121 Silver lead and quartz; fine. 6 x 4.

122 A selection of minerals from the Lake Superior region, comprising many of the foregoing; all good cabinet specimens. Large lot.

123 Collection of Lake Superior minerals, forest rock, specular iron and quartz, American onyx, calcite, gypsum in crystals, feldspar, manganese, hematite, etc.; 22 specimens, all good and of cabinet size. Labeled with name and locality. All the following lots are labeled in the same manner.

124 A similar selection like the last, with additional varieties, some very fine. 25 specimens.

125 Feldspar; very fine; phrenite; fine; forest rock, franklinite, garnets, etc. All from Lake Superior. 17 specimens.

126 Similar lot; some very fine; Mexican onyx, fossil coral, prehnite, geode of chalcedony, sargasite, cluster of smoky crystals; many from Colorado. Large lot.

127 Another selection, equally as good. These, and the following, are from various Western States, Colorado, etc. 20 pieces.

128 Another selection, of the same quality. 24 pcs.

129 Another lot; fine examples of rose quartz, forest rock, chain coral, geode of milky quartz, columnar gypsum, yellow calcite, franklinite; desirable lot. 42 pcs.

130 Specular iron ore, with a large number of ores from various Western States. 205 pcs.

131 Rose quartz, franklinite, lamulite, fossil shark's vertebræ, etc., excellent lot. 45 pcs.

132 A similar selection; all good. 50 pcs.

133 Another selection, of equally good quality; Lake Superior and Western States. 29 pcs.

134 Another similar selection, but will average better than any of the others. 62 pcs.

135 Forest rock, Deadwood, Dakota. 13 x 4.

136 Forest rock, same locality; very fine. 9 x 6.

137 Forest rock, like the last. 6 x 8.

138 Agatized wood and chalcedony, Colorado. 7 x 4.

139 Large quartz crystal, Hot Springs, Ark. 5 x 3.

140 Apatite, fine large crystal, Renfrew, Ontario. 5 x 2.

141 Polished agate. 3½ x 2.

142 Tourmaline and muscovite, Grafton, N. H. 4 x 3.

143 Rose-quartz; fine. 5 x 4.

144 Rhomb spar, St. Lawrence Co., N. Y. 5 x 3.
145 Pink satin spar; very fine. 2 x 2.
146 Mazon Creek, black fossil. 5 x 3.
147 Amazon stone, Pike's Peak: very fine. 4 x 3.
148 Travertine. 4 x 3.
149 Gold-bearing pyrites and grey silver. 4 x 2.
150 Cubic lead pyrites, Galena, Ill. 6 x 3.
151 Cubic galena. 2 x 3.
152 Forest rock. 3 x 3.
153 Mazon Creek fossil: fine. 2 x 3.
154 Franklinite, with iron and ruby zinc. 6 x 1.
155 Quartz crystals, Hot Springs, Ark. 5 x 3.
156 Cubic galena; very fine. 5 x 3.
157 Marcasite; handsome. 4 x 4.
158 Calamine, New Jersey. 3 x 4.
159 Willemite with franklinite. 6 x 5.
160 The same; fine. 6 x 3.
161 Green willemite with franklinite. 5 x 4.
162 Selected lot, mostly of large cabinet size, and good specimens; copper and iron ores, etc.; diamond drill cores, showing the overlying rock in various mines. 57 pieces.
163 A similar lot, quality equally good, but the size is less, but all fair cabinet specimens. 128 pcs.
164 Iron ores, spars, etc., from the Marquette, Lake Superior region, together with an assortment of foreign specimens. 185 pcs.
165 A selection like the last, mostly minerals from Marquette region, and a variety of foreign specimens, many labeled with name and locality, in number upwards of 400.
166 A mixed lot; ores, diamond drill cores, etc., etc.; a great variety. 300 pcs.
167 Baculite, Cheyenne; 4 fine specimens and several Mazon fossils. 6 pcs.
168 Amazon stone: very fine. 2 x 3.
169 Geode of chalcedony: fine. 3 x 4.
170 Apatite in pink calcite; fine. 3 x 4.
171 Quartz crystals, Hot Springs, Ark. 2 x 3.
172 Willemite with franklinite; fine. 3 x 4.
173 Geode of quartz, Mississippi River. 3 x 4.

174 Celestine, Arkansas. 5 x 3.
175 Sulphuret of zinc, ruby blende, etc.
176 Copper pyrites; fine. 3 x 3.
177 Fossiliferous marble; fine. 3 x 4.
178 Fossil shark's back bone. 2 x 2.
179 Radiated asbestos. 2 x 4.
180 Franklinite, etc. 3 x 4.
181 Radiated pyrites; fine, rare. 2 x 3.
182 Cubic lead ore. 2 x 3.
183 Radiated pyrites; very fine. 2 x 3.
184 Like the last; finer specimen. 2 x 2.
185 Melted tin in mass, Cumberland, Eng. 2 x 2.
186 Copper pyrites. 1 x 3.
187 Copper pyrites. 1 x 2.
188 Spathic iron. 3 x 4.
189 Petrified wood. 3 x 4.
190 Calcite in chalcedony. 4 x 3.
191 Rich ore of tin, Cornwall, Eng. 2 x 3.
192 A lot of diamond drill cores, iron ores, etc.; similar to 166, but average better. A large number of small specimens not counted. 1681 pcs.
193 Milky crystallized quartz. 4 x 3.
194 Rose quartz, large imperfect crystal. 5 x 2.
195 Heart-shaped pebble of black trap. 4 x 4.
196 Conglomerate; copper and calcite. 3 x 4.
197 Geode of copper, calcite, epidote, etc.; massive, fine. 6 x 8.
198 Native leaf copper in calcite; fine. 6 x 3.
199 Amethyst geode. 4 x 2.
200 Great flakes cut from native copper, five long chips, fan shaped. 7 x 5.
201 Native copper tree shaped; massive and very fine; weight nearly 10 lbs. 15 x 9.
202 Native copper, quartz, etc.; fine. 7 x 4.
203 Native sheet copper in amygdaloid. 7 x 4.
204 Native copper with calcite. 4 x 3.
205 Immense diamond drill core of black flint. 24 x 1
206 Long cutting of native copper. 30 x 1
207 Native copper in red prehnite. 5 x 4
208 Native copper in calcite. 6 x 3.

209 Bullet nodule of copper epidote, amygdaloid, etc., from the Calumet mine: fine: weight nearly 10 lbs. 8 x 5.
210 Native copper and calcite, epidote, etc. 7 x 4.
211 Native copper in crystals, with calcite, etc. 5 x 5.
212 The same: fine. 6 x 3.
213 Native copper: fine. 3 x 4.
214 Native copper, epidote, calcite, etc., Franklin mine. 4 x 5.
215 Rich conglomerate of copper, calcite, etc. 4 x 5.
216 Native copper, quartz and prehnite. 4 x 4.
217 Native copper, etc. 5 x 3.
218 Massive native copper and calcite. 6 x 5.
219 Conglomerate of copper, calcite, etc. 4 x 4.
220 Arborescent native copper, calcite and epidote. 8 x 6.
221 Native copper. 4 x 3.
222 Geode of moss copper in quartz. 4 x 3.
223 Copper, calcite, epidote, etc. 5 x 4.
224 Native copper: very fine. 5 x 3.
225 Iron mottled amethyst. 2 x 3.
226 Native copper with calcite. 3 x 4.
227 Native copper, calcite and epidote. 5 x 3.
228 Arborescent copper, calcite, etc. 3 x 4.
229 Smelted half-freed silver and copper. Said at the mines to contain $8.00 in silver. A magnificent specimen. 10 x 10.
230 Arborescent copper. 4 x 4.
231 Arborescent copper in prehnite. 5 x 6.
232 Crystallized copper, etc. 4 x 3.
233 Arborescent copper in prehnite. 7 x 4.
234 Native copper, quartz, epidote, etc. 5 x 3.
235 The same. 5 x 3.
236 Copper, calcite, epidote, etc. 4 x 2.
237 Geode of amethyst. 2 x 3.
238 Iron mottled amethyst. 1 x 3.
239 Barytes and pyrites in calcite. 3 x 4.
240 Native copper, etc. 4 x 5.
241 Iron coated amethyst. 2 x 4.
242 Arborescent native copper: fine. 4 x 2.
243 The same. 3 x 4.
244 Arborescent copper in calcite. 4 x 3.

245 Pigs of ingots of copper; weight, 10 oz. 3 x 1 2 pcs.
246 Copper, calcite, etc. 3 x 3.
247 Conglomerate; copper, epidote, etc. 3 x 4.
248 Tabular jasper, in brown stone. 3 x 4.
249 Mass copper and calcite; very pure. 2 x 4.
250 Granular copper, Calumet mine. 2 x 3.
251 Amethystine quartz in crystals. 3 x 3.
252 Mass copper in quartz. 2 x 3.
253 Leaf copper and calcite. 4 x 4.
254 Cluster of dogtooth spar. 3 x 4
255 Rhomb spar; fine. 3 x 3.
256 Amethyst, coated and colored by iron. 3 x 4.
257 Lavender amethyst; fine. 3 x 3.
258 Specular iron ore. 12 x 6.
259 The same. 7 x 8.
260 The same. 6 x 10.
261 Native copper, with the various rocks in which it occurs. Like the preceding, from 201 inclusive, these are all fine selected specimens, suitable for cabinets. 80 pcs.
262 Like the preceding, but average of smaller size, but of equally good quality. 59 pcs.
263 Specular iron ore. 71 pcs.
264 Specular iron ore. 84 pcs.
265 Box of minerals and ores, mostly labeled, more than 50 pieces.
266 Large specimens of specular magnetic iron ore. 8 pcs.
267 Cockscomb baryta, heavy spar, very fine specimen. 5 x 6½.
268 Kidney manganese, McCoulies, Michigan. 5½ x 6½.
270 Dogtooth spar, calcite on hematite; fine. 4 x 3.
271 Glossy black, pearl and shot ore limonite and hematite, massive and fine. 6 x 5.
272 Cockscomb spar. 5 x 8.
273 Calcite and pyrites on magnetic iron. 5½ x 4.
274 Black pearl hematite in tabular baryta; very fine. 5 x 4.
275 Velvet grape ore, coated with druzy quartz, Jackson, Mine. 8½ x 3.
276 Iridescent columnar limonite. 6 x 4.
277 Pink calcite, rock crystal and magnetic iron. 2 x 2.
278 Cockscomb spar and manganese, McCoulies Mine. 4 x 3.

279 Diamond drill cores, chlorite, actinolite and iron; fine. 6 x 1. 2 pcs.
280 Large-grained radiated limonite; very fine. 4½ x 2½.
281 Calcite on magnetic iron, Republic Mine, Mich. 4 x 3.
282 Manganite on jasper, McComber Mine. 2 x 3.
283 Ochrous iron on satin-wood limonite. 3 x 2½.
284 Geode of dogtooth spar, calcite and pyrites in hematite. 4 x 3.
285 Geode of smoky calcite in jasper. 3 x 3.
286 Pyrolusite on hematite. 3 x 2.
287 Velvety satinwood limonite and jasper. 4 x 3.
288 Rich, specular hematite. 12 x 8.
289 Owl's eye satinwood ore of limonite. 8 x 6.
290 Cockscomb spar. 3 x 2½.
291 Ochrous owl's eye limonite. 5 x 2½.
292 Kidney manganese; massive and fine. 7 x 5.
293 Dogtooth spar on hematite. 6 x 4.
294 Vesicular micaceous hematite; very fine. 6 x 5.
295 Cockscomb barytes; heavy spar on hematite. 4 x 4.
296 Calcite and pyrites on quartz. 5 x 3.
297 Manganese, limonite, etc. 5 x 3½.
298 Columnar limonite; fine ochrous and velvety pipe ore. 6 x 5.
299 Limonite pipe ore. 6 x 4.
300 Columnar limonite in barytes. 3 x 2.
301 Actinolite, asbestos and magnetic iron. 5 x 4.
302 Geode of drusy calcite on hematite. 4 x 4.
303 Dogtooth calcite and iridescent pyrites, Marquette Co., Mich. 4 x 4.
304 Nail-head calcite on specular iron. 5 x 4.
305 Geode of smoky calcite in hematite. 5 x 3½.
306 Smoky calcite on hematite. 4½ x 4.
307 Geode of nail-head spar and calcite in hematite. 8 x 5.
308 Pyrites, dogtooth spar and calcite on magnetic iron. 6½ x 4.
309 Pipe ore, limonite and barytes. 3 x 2.
310 Actinolite, asbestos and pyrites. 5 x 4.
311 Pyrolusite, manganese and hematite. 6½ x 5.
312 Geode of smoky calcite on hematite. 5 x 3.
313 Geode of smoky calcite on hematite. 3 x 3.

314 Black pearl satinwood limonite. 4 x 3.
315 Black pearl limonite and hematite. 6 x 5.
316 Pipe ore, limonite and barytes. 3½ x 2½
317 Geode of calcite, sprinkled with pyrites in jasper. 5 x 3½.
318 Actinolite, asbestus and magnetic iron. 5 x 4
319 Kidney and grape manganese. 5 x 4
320 Magnesite, coated with smoky calcite and hematite. 7x4
321 Actinolite, radiated asbestos. 5 x 4.
322 Quartz, barytes, and calcite on iron. 4 x 2½.
323 Amethystine quartz and pink calcite on magnetic iron. 5 x 3.
324 Wad; manganese on hematite coated with pyrolusite. 5 x 4.
325 Geode of dogtooth spar, calcite and blue hematite. 6 x 3½.
326 Fine cockscomb barytes and hematite. 6 x 3½.
327 Actinolite, and asbestos on magnetic ore. 5 x 4.
328 Geode of dogtooth spar, calcite and hematite. 3 x 3.
329 Stubby pyrolusite and manganese. 5 x 4.
330 Grape manganese. 5 x 4.
331 Actinolite and asbestos. 3 x 3.
332 Iridescent satinwood limonite on hematite. 4½ x 3.
333 Pyrolusite and manganese in limonite. 4 x 3½.
334 Geode of dogtooth spar on blue hematite. 5 x 3.
335 Pyrolusite, manganese, hematite and barytes. 4½ x 3.
336 Cockscomb barytes and hematite. 3½ x 3½.
337 Heavy spar, cockscomb crystals. 3½ x 2½.
338 Lilac manganese. 4½ x 3½.
339 Satinwood limonite grape ore. 4½ x 3.
340 Dogtooth spar, calcite on blue hematite. 5 x 3½.
341 Limonite velvety pipe ore. 4 x 3.
342 Specular hematite. 6 x 4.
343 Pyrolusite manganese and hematite. 3 x 2.
344 Pipe ore of limonite. 3 x 2½.
345 Kidney manganese. 5½ x 3.
346 Cockscomb spar, with brown hematite. 5 x 3½.
347 Pearl grape ore of iron. 4 x 2½.
348 Pyrolusite, manganese, barytes and hematite. 3½ x 2.
349 Grape manganese. 4 x 3.
350 Columnar limonite and barytes. 4 x 3½.

351 Kidney manganese. 4 x 2½.
352 Flattened geode of calcite in hematite. 3 x 2.
353 Columnar pipe ore of limonite and hematite. 5 x 4.
354 Ochrous grape ore, limonite and hematite. 6 x 4.
355 Manganite and tabular barytes. 2 x 3.
356 Pyrolusite, manganese, barytes and jasper. 5 x 4.
357 Pyrolusite, manganese, satinwood limonite. 4 x 4.
358 Pyrosulite, hematite, etc. 5 x 3.
359 Pipe manganese. 4 x 3.
360 Geode. 4 x 2½.
361 Pyrites, calcite and iron. 4 x 3½.
362 Velvety grape and shot ore, limonite. 2½ x 2.
363 Calcite and pyrites on rich specular iron ore. 3 x 2½.
364 Pyrolusite and manganese. 3 x 2½.
365 Cockscomb spar. 3 x 4.
366 Brown satinwood limonite. 3½ x 2.
367 Brown iron ore. 4½ x 2.
368 Goethite and limonite. 3½ x 2½.
369 Grape manganese. 3½ x 2.
370 Kidney manganese and psilomelane. 5 x 4.
371 Barytes on hematite. 5 x 3½.
372 Black pearl shot ore on limonite. 4½ x 3.
373 Cockscomb spar. 5 x 3½.
374 Manganite, rare needle ore. 4 x 3.
375 Specular hematite. 6 x 3.
376 Cockscomb spar. 3½ x 1½.
377 Geode of nail-head spar, calcite and hematite. 4 x 3.
378 Velvety ochrous pipe ore of iron: very fine. 7 x 6.
379 Cockscomb spar, pyrolusite, etc.: very fine. 6 x 5.
380 Pipe ore of limonite. 3½ x 3.
381 Crystallized horn-blende and chlorite with manganese. 8 x 6.
382 Black and satinwood limonite. 6 x 5.
383 Columnar limonite. 4 x 3.
384 Velvety shot ore, hematite and manganese. 3½ x 2½.
385 Black pearl grape ore, hematite and manganese. 4 x 3.
386 Kidney manganese, with psilomelane. 4 x 7½.
387 Pyrolusite, manganese, barytes and jasper. 5 x 4.
388 Grape manganese and hematite. 7 x 5.
389 Cockscomb spar and hematite. 5 x 6.

390 Geode of rounded calcite on yellow ochre and iron. 6x5.
391 Cockscomb baryten, hematite and limonite. 5 x 4.
392 Smoky calcite, coated on small globular, pill-like ore of magnesia. 8 x 5½.
393 Nail-head and color calcite on rich specular iron ore. 8 x 5½.
394 Hematite; glossy pearl and grape ore. 5 x 6.
395 Brilliant and fine satinwood limonite and hematite. 7 x 6.
396 Amethystine quartz, on rich magnetic iron. 3½ x 5½.
397 Pyrolusite, manganese and hematite. 5 x 3.
398 Actinolite, asbestos and magnetic iron. 5 x 3½.
399 Baryten, hematite, etc. 3 x 2½.
400 Geode, smoky spar, ochre and iron. 4 x 3.
401 Dogtooth spar with iron pyrites. 5 x 3.
402 A collection of Lake Superior minerals comprising good examples of nearly all of the leading varieties, baryten, the various spars, pyrites, manganese, and different ores of iron and other metals; nearly all are good and suitable for cabinet specimens. 115 pcs.
403 Geode of pyrolusite, manganese and limonite. 5 x 3
404 Glossy limonite, fibrous satinwood kidney ore; very fine. 4 x 3.
405 Specular iron ore and hematite. 4 x 4
406 Cockscomb heavy spar with hematite; very fine. 4x3½.
407 Specular iron. 4 x 4.
408 Heavy spar with hematite 4½ x 3
409 Fine geode of limonite, hematite, etc. 7½ x 5.
410 Velvet pipe ore of iron. 5 x 4.
411 Hematite, limonite, and magnetic iron ore. 4 x 3.
412 Pyrolusite indicated by contact with iron ore. 3 x 2½.
413 Fine-veined kidney iron. 4 x 2½.
414 Shot ore and columnar limonite 4 x 3½.
415 Shot and pipe ore, limonite and hematite. 5 x 3
416 Chameleon limonite and hematite. 4 x 3.
417 Kidney manganese, psilomelane, etc. 5 x 4.
418 Cockscomb spar and hematite. 4 x 3.
419 Brilliant iridescent, chameleon hematite. 4 x 2½.
420 Satinwood kidney hematite. 4½ x 2
421 Actinolite, asbestos and magnetic iron. 5 x 3.
422 Pyrolusite in limonite. 4 x 3.

423 Cockscomb spar and black tourmaline. 2 x 3.

424 Acicular iron ore of brilliant lustre. 4 x 3.

425 Massive rock crystal, Hot Springs, Ark.; *fine*. 4 x 4.

426 Quartz crystal, pseudomorphic, rhomboidal in form. 2 x 3½.

427 Flint, coated with small crystals; *fine*. 4 x 3.

428 Amethystine quartz in crystals, Hot Springs, Ark.

429 Quartz, Hot Springs; in brilliant yellowish crystals. 3 x 3.

430 Quartz, Iron Mountain, Mo.; in small crystals. A handsome group. 3 x 2½.

431 Groups of similar quality; same location. Iron Mountain, Mo.

432 Crystals of quartz in group, Hot Springs. 3½ x 3½.

433 Crystals of quartz, Hot Springs, Ark.; all fine. A desirable cabinet lot. 41 pcs.

434 Amethystine quartz, crystalline or in crystals. Good cabinet lot. 22 pcs.

With this Catalogue, No. 87 of my series, correspondents will receive a catalogue of a superb collection of Minerals, the property of the Jasperized Wood and Mineral Co. of New York City, a collection unprecedented in extent among American dealers, and now offered for sale by auction or at private sale. It is arranged in a series of cabinets lettered from A to N, and is offered for sale in small collections as catalogued, at the prices affixed to the different lots, with the view of selling the collection in cabinets. The goods are now on exhibition at the store of Messrs. Bangs & Co., 739 and 741 Broadway, New York City.

Preference will be given to the sale in large lots or to the sale of the collection entire. In case any portion remains unsold on Saturday, June 26, it will be offered at auction as catalogued.

Orders for the sale will be received and executed by the auctioneers, by the Jasperized Wood and Mineral Co., by all dealers in coins, minerals, bric-a-brac, and books. The address of the J. W. & M. Co. will, until after the sale, be "care Messrs. Bangs & Co., 739 and 741 Broadway, New York," at which place buyers and mineralogists generally are invited to call and examine the goods.

Buyers will notice the peculiar arrangement of the catalogue by numbers under certain letters, and in sending bids they are requested to name both letters and numbers, thus: A–1, Chalcedony; B–3, Idocrase, &c.

For this magnificent collection of Minerals of the Jasperized Wood and Mineral Co., it is but small praise to say it is the most extensive and the finest collection ever offered for sale in America. Descriptions are not attempted, and the minerals must be seen in order that their beauty and value be fairly appreciated, as it is quite impossible by description to give fair ideas concerning them, hence no description is attempted.

The present sale, No. 87, the Wettstein Collection, is a large and important consignment from Mr. G. A. Wettstein of Negaunee, Mich., mainly of Lake Superior Ores and Minerals, many of which are large specimens and of fine quality. They will be sold by auction in lots as numbered, for which bids are solicited by the undersigned, and by the purchasing agents who usually attend my sales.

W. ELLIOT WOODWARD.

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